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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Xiong Zhang et al.

Docket No. 061472-0269224

Serial No.: 09/700,236

Group Art Unit: 1765

Filing Date: May 9, 2001

Examiner: Song, Matthew J.

For: **CRYSTAL GROWTH METHOD FOR GROUP-III NITRIDE AND RELATED COMPOUND SEMICONDUCTORS**

AMENDMENT

Commissioner of Patents and Trademarks
Washington, D.C. 20231

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Dear Sir:

In response to the Office Action mailed May 8, 2002, Applicants request that the application be amended as follows:

In The Claims

Please amend the claims as follows:

- 1 1. (Once amended) A crystal growth method for the group-III nitride compound semiconductors, comprising:
 - 3 forming a MOCVD-grown periodic or non-periodic buffer having at least three layers with each layer having a thickness in the range from 2 nm to 6 nm on a substrate at a first temperature in which the layers alternate between at least two types of compound semiconductors A and B different from each other in lattice constant, energy band gap, layer thickness, and composition; and
 - 8 forming a MOCVD-grown layer of a group-III nitride compound semiconductor on the formed multi-layered buffer, wherein said layer of a group-III nitride is formed at a temperature higher than said first temperature.
- 1 2. (Once amended) A crystal growth method according to claim 1, further comprising doping a n- or p-type in said group-III nitride compound semiconductor.
- 1 3. (Once amended) A crystal growth method according to claim 1, wherein the compound semiconductors A and B are alternatively and periodically grown by MOCVD on said substrate to form said multi-layered buffer.